Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

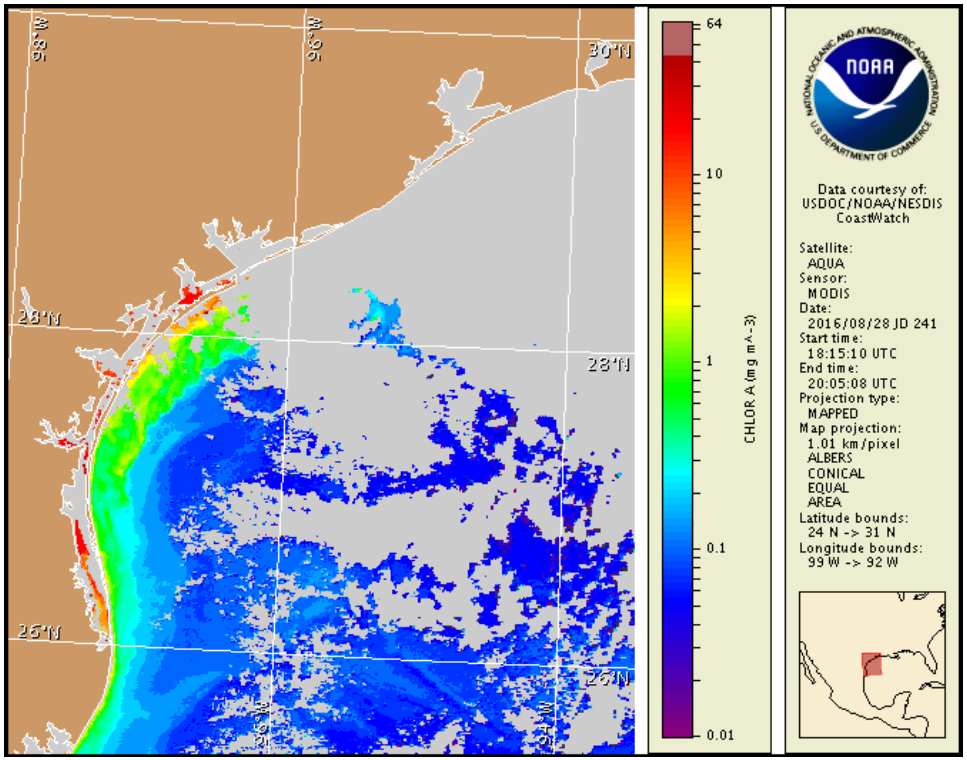
Monday, 29 August 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, August 22, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from August 19 to 26: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to very low concentrations along the coast of Texas. No respiratory irritation is expected alongshore Texas Monday, August 29 through Tuesday, September 6.

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

Analysis

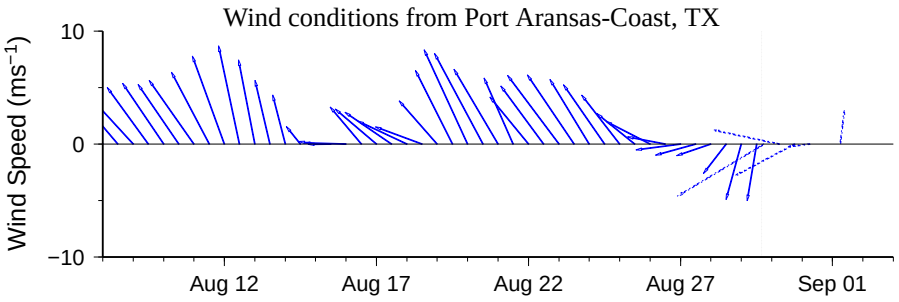
Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, September 6.

Karenia brevis has been detected alongshore the Texas coast and ranges from background to 'very low b' concentrations. Sampling from the Texas A&M University's Imaging FlowCytobot, located on the Port Aransas ship channel, indicates that *K. brevis* ranges between 'not present' and 'very low a' concentrations (TAMU; 8/24-29). Sampling at the Bob Hall Pier on Mustang Island detected up to 'very low a' *K. brevis* concentrations and sampling alongshore the Coastal Studies Laboratory on South Padre Island detected up to 'very low b' *K. brevis* concentrations (TPWD; 8/26). For information on area shellfish restrictions, contact the Texas Department of State Health Services.

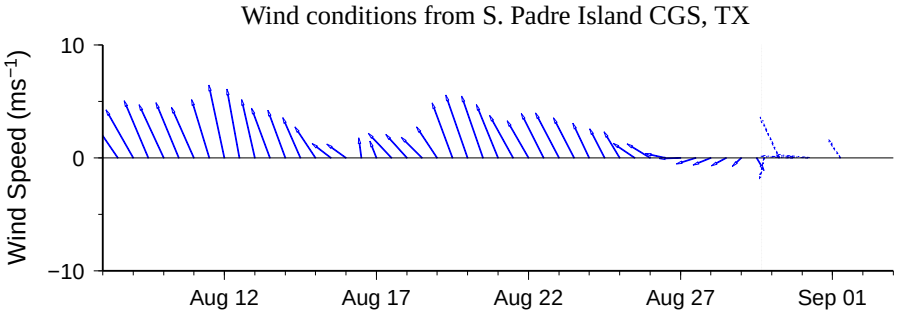
Recent MODIS Aqua imagery (8/28; shown left) is completely obscured by clouds along the Texas coast from Sabine Pass to Pass Cavallo, limiting analysis. Patches of elevated chlorophyll (2-8μg/L) are visible along the coast from Pass Cavallo to the Rio Grande. Elevated chlorophyll is not indicative of the presence of *K. brevis* and is most likely due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate a maximum transport of K. brevis concentrations 70 km south from the Port Aransas and 60 km south from Brazos Santiago Pass August 27 to September 1.

Davis, Kavanaugh



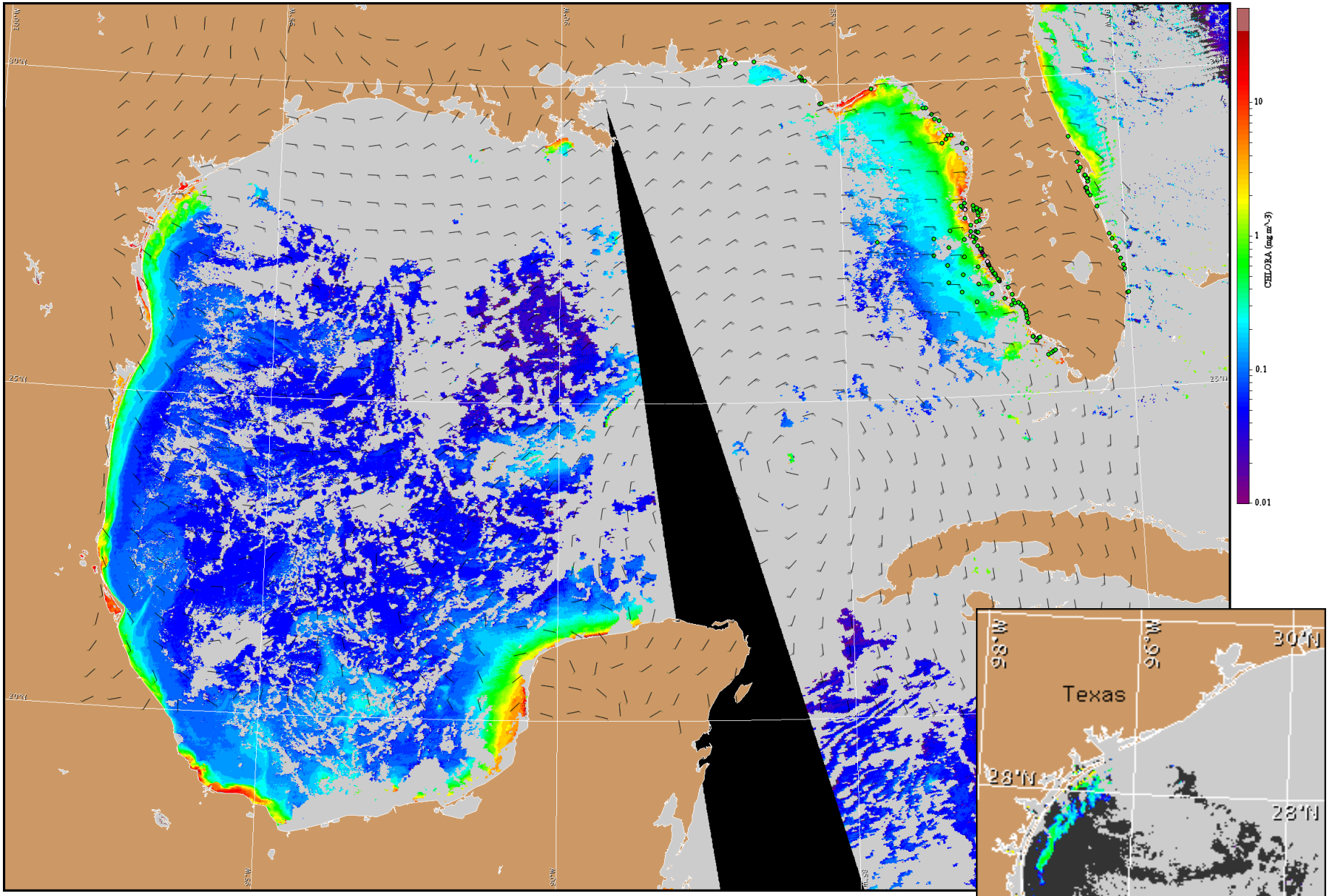
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Baffin Bay to Port Aransas: North to east winds (5-15kn, 3-8m/s) today through Thursday shifting south after midnight. North to east winds (5-10kn, 3-5m/s) Friday becoming southeast winds (5-10kn) Friday night.

Port Mansfield to the Rio Grande: North winds (9-13kn, 5-7m/s) becoming northeast winds (9-13kn) this afternoon. East to southeast winds (7-12kn, 4-6m/s) tonight. East to northeast winds (7-12kn) Tuesday through Wednesday, shifting north (7-8kn, 4m/s) early Thursday morning. Northeast to east winds (7-11kn, 4-6m/s) Thursday through Friday.



Satellite chlorophyll image and forecast winds for August 30, 2016 06Z with points representing cell concentration sampling data from August 19 to 26: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).